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ENTRY SESSION
FULL ESTIMATED COST 0.21 0.21

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=> S (DA COSTA E SILVA, O? OR DA COSTA E SILVA O?)/AU
L1 52 (DA COSTA E SILVA, O? OR DA COSTA E SILVA O?)/AU

=> S (BOHNERT, H? OR Bohnert H?)/AU
L2 1107 (BOHNERT, H? OR Bohnert H?)/AU

=> S (VAN THIELEN, N? OR VAN THIELEN N?)/AU
L3 21 (VAN THIELEN, N? OR VAN THIELEN N?)/AU

=> S (CHEN, R? OR CHEN R?)/AU
L4 13011 (CHEN, R? OR CHEN R?)/AU

=> S (SARRIA MILLAN, R? OR SARRIA MILLAN R?)/AU
L5 7 (SARRIA MILLAN, R? OR SARRIA MILLAN R?)/AU

=> S L1 AND L2 AND L3 AND L4 AND L5
L6 3 L1 AND L2 AND L3 AND L4 AND L5

=> D L6 1-3 BIB

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:763218 CAPLUS

DN 135:314477

TI Protein and cDNA sequence of *Physcomitrella patens* protein kinase
stress-related proteins and uses in plants for increased tolerance to
environmental stresses

IN Da Costa e Silva, Oswaldo; Bohnert, Hans J.; Van
Thielen, Nocha; Chen, Ruoying; Sarria-Millan,
Rodrigo

PA Basf Plant Science G.m.b.H., Germany

SO PCT Int. Appl., 154 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 7

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|---|----------|-----------------|----------|
| PI | WO 2001077356 | A2 | 20011018 | WO 2001-US11435 | 20010406 |
| | WO 2001077356 | A3 | 20031016 | | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZW | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,
IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
GW, ML, MR, NE, SN, TD, TG | | | |
| | CA 2405750 | AA | 20011018 | CA 2001-2405750 | 20010406 |
| | US 2002066124 | A1 | 20020530 | US 2001-828310 | 20010406 |
| | US 6689939 | B2 | 20040210 | | |
| | US 2002069432 | A1 | 20020606 | US 2001-828447 | 20010406 |
| | US 6720477 | B2 | 20040413 | | |
| | CA 2405697 | AA | 20020613 | CA 2001-2405697 | 20010406 |
| | WO 2002046442 | A2 | 20020613 | WO 2001-US11253 | 20010406 |
| | WO 2002046442 | A3 | 20030612 | | |

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| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| AU 2002043190 | A5 | 20020618 | AU 2002-43190 | 20010406 |
| US 2002102695 | A1 | 20020801 | US 2001-828303 | 20010406 |
| US 6677504 | B2 | 20040113 | | |
| US 2002152502 | A1 | 20021017 | US 2001-828302 | 20010406 |
| US 6818805 | B2 | 20041116 | | |
| US 2003097675 | A1 | 20030522 | US 2001-828062 | 20010406 |
| US 6710229 | B2 | 20040323 | | |
| EP 1335986 | A2 | 20030820 | EP 2001-989068 | 20010406 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| EP 1373530 | A2 | 20040102 | EP 2001-923229 | 20010406 |
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| US 2004194163 | A1 | 20040930 | US 2003-688481 | 20031017 |
| US 2004107463 | A1 | 20040603 | US 2003-716089 | 20031118 |
| US 2004148658 | A1 | 20040729 | US 2004-764259 | 20040123 |
| US 2004128721 | A1 | 20040701 | US 2004-768511 | 20040130 |
| US 2004216183 | A1 | 20041028 | US 2004-770225 | 20040202 |
| PRAI | US 2000-196001P | P | 20000407 | |
| | US 2001-828062 | A3 | 20010406 | |
| | US 2001-828302 | A3 | 20010406 | |
| | US 2001-828303 | A3 | 20010406 | |
| | US 2001-828310 | A3 | 20010406 | |
| | US 2001-828447 | A3 | 20010406 | |
| | WO 2001-US11253 | W | 20010406 | |
| | WO 2001-US11435 | W | 20010406 | |

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:763216 CAPLUS
DN 135:328145
TI Protein and cDNA sequence of Physcomitrella patens cell cycle
stress-related proteins and uses in plants for increased tolerance to
environmental stresses
IN Da Costa e Silva, Oswaldo; Bohnert, Hans J.; Van
Thielen, Nocha; Chen, Ruoying; Sarria-Millan,
Rodrigo

PA Basf Plant Science G.m.b.H., Germany

SO PCT Int. Appl., 90 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 7

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | ----- | ---- | ----- | ----- | ----- |
| PI | WO 2001077354 | A2 | 20011018 | WO 2001-US11294 | 20010406 |
| | WO 2001077354 | A3 | 20020912 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
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| | CA 2405703 | AA | 20011018 | CA 2001-2405703 | 20010406 |
| | US 2002066124 | A1 | 20020530 | US 2001-828310 | 20010406 |
| | US 6689939 | B2 | 20040210 | | |
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| US 6720477 | B2 | 20040413 | | |
| CA 2405697 | AA | 20020613 | CA 2001-2405697 | 20010406 |
| WO 2002046442 | A2 | 20020613 | WO 2001-US11253 | 20010406 |
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HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
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GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2002043190 | A5 | 20020618 | AU 2002-43190 | 20010406 |
| US 2002102695 | A1 | 20020801 | US 2001-828303 | 20010406 |
| US 6677504 | B2 | 20040113 | | |
| US 2002152502 | A1 | 20021017 | US 2001-828302 | 20010406 |
| US 6818805 | B2 | 20041116 | | |
| EP 1268830 | A2 | 20030102 | EP 2001-928389 | 20010406 |
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IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| US 2003097675 | A1 | 20030522 | US 2001-828062 | 20010406 |
| US 6710229 | B2 | 20040323 | | |
| EP 1335986 | A2 | 20030820 | EP 2001-989068 | 20010406 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI, CY, TR | | | | |
| US 2004194163 | A1 | 20040930 | US 2003-688481 | 20031017 |
| US 2004107463 | A1 | 20040603 | US 2003-716089 | 20031118 |
| US 2004148658 | A1 | 20040729 | US 2004-764259 | 20040123 |
| US 2004128721 | A1 | 20040701 | US 2004-768511 | 20040130 |
| US 2004216183 | A1 | 20041028 | US 2004-770225 | 20040202 |
| PRAI | US 2000-196001P | P | 20000407 | |
| | US 2001-828062 | A3 | 20010406 | |
| | US 2001-828302 | A3 | 20010406 | |
| | US 2001-828303 | A3 | 20010406 | |
| | US 2001-828310 | A3 | 20010406 | |
| | US 2001-828447 | A3 | 20010406 | |
| | WO 2001-US11253 | W | 20010406 | |
| | WO 2001-US11294 | W | 20010406 | |

L6 ANSWER 3 OF 3 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2004:237439 BIOSIS
DN PREV200400237269
TI Cell cycle stress-related proteins and methods of use in plants.
AU da Costa e Silva, Oswaldo [Inventor, Reprint Author];
Bohnert, Hans J. [Inventor]; van Thiel, Nocha
[Inventor]; Chen, Rouying [Inventor]; Sarria-Millan,
Rodrigo [Inventor]
CS Morrisville, NC, USA
PI ASSIGNEE: BASF Plant Science GmbH, Ludwigshafen, Germany
US 6710229 20040323
SO Official Gazette of the United States Patent and Trademark Office Patents,
(Mar 23 2004) Vol. 1280, No. 4. <http://www.uspto.gov/web/menu/patdata.html>
e-file.
DT ISSN: 0098-1133 (ISSN print).
LA Patent
ED Entered STN: 28 Apr 2004
Last Updated on STN: 28 Apr 2004

=> S L1 OR L2 OR L3 OR L4 OR L5
L7 14143 L1 OR L2 OR L3 OR L4 OR L5
=> S L7 NOT L6
L8 14140 L7 NOT L6
=> S CDC21 AND L8

L9 0 CDC21 AND L8

=> S CDC54 AND L8
L10 0 CDC54 AND L8

=> S MCM4 AND L8
L11 0 MCM4 AND L8

=> D HIS

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L1 52 S (DA COSTA E SILVA, O? OR DA COSTA E SILVA O?)/AU
L2 1107 S (BOHNERT, H? OR BOHNERT H?)/AU
L3 21 S (VAN THIELEN, N? OR VAN THIELEN N?)/AU
L4 13011 S (CHEN, R? OR CHEN R?)/AU
L5 7 S (SARRIA MILLAN, R? OR SARRIA MILLAN R?)/AU
L6 3 S L1 AND L2 AND L3 AND L4 AND L5
L7 14143 S L1 OR L2 OR L3 OR L4 OR L5
L8 14140 S L7 NOT L6
L9 0 S CDC21 AND L8
L10 0 S CDC54 AND L8
L11 0 S MCM4 AND L8

=> S CDC21
L12 231 CDC21

=> S CDC54
L13 60 CDC54

=> S MCM4
L14 349 MCM4

=> S L12 OR L13 OR L14
L15 577 L12 OR L13 OR L14

=> S L15 AND (PLANT OR PLANTS)
L16 65 L15 AND (PLANT OR PLANTS)

=> S L16 NOT L7
L17 64 L16 NOT L7

=> DUPLICATE REMOVE L17
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):N
PROCESSING COMPLETED FOR L17
L18 62 DUPLICATE REMOVE L17 (2 DUPLICATES REMOVED)

=> S L18 AND (TRANSF? OR TRANSGE?)
L19 3 L18 AND (TRANSF? OR TRANSGE?)

=> D L19 1-3 TI

L19 ANSWER 1 OF 3 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Identification and cloning of two putative subunits of DNA polymerase
epsilon in fission yeast.

L19 ANSWER 2 OF 3 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Identification of two *Xenopus laevis* genes, xMCM2 and xCDC46, with
sequence homology to MCM genes involved in DNA replication.

L19 ANSWER 3 OF 3 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI ISOLATION OF THE THYMIDYLATE SYNTHETASE EC-2.1.1.45 GENE TMP-1 BY
COMPLEMENTATION IN *SACCHAROMYCES-CEREVISIAE*.

=> S L18 NOT L19

L20

59 L18 NOT L19

=> D L20 1-10 TI

L20 ANSWER 1 OF 59 MEDLINE on STN
TI The Cdt1 protein is required to license DNA for replication in fission yeast.

L20 ANSWER 2 OF 59 CAPLUS COPYRIGHT 2006 ACS on STN
TI Cell Cycle and Developmental Regulations of Replication Factors in Mouse Embryonic Stem Cells

L20 ANSWER 3 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI The F-box protein Met30 is required for multiple steps in the budding yeast cell cycle.

L20 ANSWER 4 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Genome-wide expression profiling of the response to azole, polyene, echinocandin, and pyrimidine antifungal agents in *Candida albicans*.

L20 ANSWER 5 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Limited TTP supply affects telomere length regulation in a telomerase-independent fashion.

L20 ANSWER 6 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Phosphorylation-dependent binding of mitotic cyclins to Cdc6 contributes to DNA replication control.

L20 ANSWER 7 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Mcm4,6,7 uses a "pump in ring" mechanism to unwind DNA by steric exclusion and actively translocate along a duplex.

L20 ANSWER 8 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Substrate requirements for duplex DNA translocation by the eukaryal and archaeal minichromosome maintenance helicases.

L20 ANSWER 9 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Drosophila Mcm10 interacts with members of the prereplication complex and is required for proper chromosome condensation.

L20 ANSWER 10 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI The Cdc23 (Mcm10) protein is required for the phosphorylation of minichromosome maintenance complex by the Dfpl-Hsk1 kinase.

=> D L20 11-20 TI

L20 ANSWER 11 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Two mcm3 mutations affect different steps in the initiation of DNA replication.

L20 ANSWER 12 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Fission yeast Cdc23 interactions with DNA replication initiation proteins.

L20 ANSWER 13 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Different phenotypes in vivo are associated with ATPase motif mutations in *Schizosaccharomyces pombe* minichromosome maintenance proteins.

L20 ANSWER 14 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Essential role of MCM proteins in premeiotic DNA replication.

L20 ANSWER 15 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Interactions between two catalytically distinct MCM subgroups are

essential for coordinated ATP hydrolysis and DNA replication.

L20 ANSWER 16 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI MCM2-7 proteins are essential components of prereplicative complexes that accumulate cooperatively in the nucleus during G1-phase and are required to establish, but not maintain, the S-phase checkpoint.

L20 ANSWER 17 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Identification of an **MCM4** homologue expressed specifically in the sexual stage of *Plasmodium falciparum*.

L20 ANSWER 18 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Orc mutants arrest in metaphase with abnormally condensed chromosomes.

L20 ANSWER 19 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Isolation and characterization of various complexes of the minichromosome maintenance proteins of *Schizosaccharomyces pombe*.

L20 ANSWER 20 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Chromatin binding of the fission yeast replication factor **mcm4** occurs during anaphase and requires ORC and cdc18.

=> D L20 21-30 TI

L20 ANSWER 21 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI MCM proteins in DNA replication.

L20 ANSWER 22 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Reduced dosage of a single fission yeast MCM protein causes genetic instability and S phase delay.

L20 ANSWER 23 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Fission yeast Cdc24 is a replication factor C- and proliferating cell nuclear antigen-interacting factor essential for S-phase completion.

L20 ANSWER 24 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Multiple domains of fission yeast Cdc19p (MCM2) are required for its association with the core MCM complex.

L20 ANSWER 25 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI A globular complex formation by Ndal and the other five members of the MCM protein family in fission yeast.

L20 ANSWER 26 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI CDC45, a novel yeast gene that functions with the origin recognition complex and Mcm proteins in initiation of DNA replication.

L20 ANSWER 27 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI The ORC1 homolog orp1 in fission yeast plays a key role in regulating onset of S phase.

L20 ANSWER 28 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Chromatin binding, nuclear localization and phosphorylation of Xenopus **cdc21** are cell-cycle dependent and associated with the control of initiation of DNA replication.

L20 ANSWER 29 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Fission yeast **cdc21**, a member of the MCM protein family, is required for onset of S phase and is located in the nucleus throughout the cell cycle.

L20 ANSWER 30 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI The nuclear envelope prevents reinitiation of replication by regulating the binding of MCM3 to chromatin in *Xenopus* egg extracts.

=> D L20 31-40 TI

L20 ANSWER 31 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI A human homologue of the yeast replication protein **Cdc21** interacts with other Mcm proteins.

L20 ANSWER 32 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI **Cdc54** belongs to the Cdc46/Mcm3 family of proteins which are essential for initiation of eukaryotic DNA replication.

L20 ANSWER 33 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Carbon and energy uncoupling associated with cell cycle arrest of cdc mutants of *Saccharomyces cerevisiae* may be linked to glucose-induced catabolite repression.

L20 ANSWER 34 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Carbon and energetic uncoupling are associated block of division at different stages of the cell cycle in several cdc mutants of *Saccharomyces cerevisiae*.

L20 ANSWER 35 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Isolation and mapping of a human gene (MCM2) encoding a product homologous to yeast proteins involved in DNA replication.

L20 ANSWER 36 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI G-1 cyclin degradation: The PEST motif of yeast Cln2 is necessary, but not sufficient, for rapid protein turnover.

L20 ANSWER 37 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI The fission yeast **cdc19+** gene encodes a member of the MCM family of replication proteins.

L20 ANSWER 38 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Fission yeast minichromosome loss mutants mis cause lethal aneuploidy and replication abnormality.

L20 ANSWER 39 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Identification and characterization of a *S. pombe* **cdc21** homolog in *Xenopus laevis*.

L20 ANSWER 40 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI The P1 family: A new class of nuclear mammalian proteins related to the yeast Mcm replication proteins.

=> D L20 41-50 TI

L20 ANSWER 41 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Budding yeast mutants showing constitutive basal levels of expression of DNA synthesis genes.

L20 ANSWER 42 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI A 12 cndot /8 kb segment, on the right arm of chromosome II from *Saccharomyces cerevisiae* including part of the DUR1,2 gene, contains five putative new genes.

L20 ANSWER 43 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Fission yeast *cdc21*-positive belongs to a family of proteins involved in an early step of chromosome replication.

L20 ANSWER 44 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI COMMON GENES AND PATHWAYS IN THE REGULATION OF THE MITOTIC AND MEIOTIC CELL CYCLES OF SCHIZOSACCHAROMYCES-POMBE.

L20 ANSWER 45 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI IDENTIFICATION AND PURIFICATION OF A FACTOR THAT BINDS TO THE MLU I CELL CYCLE BOX OF YEAST DNA REPLICATION GENES.

L20 ANSWER 46 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI PROTEIN SYNTHESIS REQUIREMENTS FOR NUCLEAR DIVISION CYTOKINESIS AND CELL SEPARATION IN SACCHAROMYCES-CEREVISIAE.

L20 ANSWER 47 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI MCM2 AND MCM3 TWO PROTEINS IMPORTANT FOR ARS ACTIVITY ARE RELATED IN STRUCTURE AND FUNCTION.

L20 ANSWER 48 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI A GROUP OF INTERACTING YEAST DNA REPLICATION GENES.

L20 ANSWER 49 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI EXPRESSION OF THE YEAST DNA PRIMASE GENE PRI1 IS REGULATED WITHIN THE MITOTIC CELL CYCLE AND IN MEIOSIS.

L20 ANSWER 50 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI THE CDC-8 TRANSCRIPT IS CELL CYCLE REGULATED IN YEAST AND IS EXPRESSED COORDINATELY WITH CDC-9 AND CDC-21 AT A POINT PRECEDING HISTONE TRANSCRIPTION.

=> D L20 51-59 TI

L20 ANSWER 51 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI MOLECULAR CHARACTERIZATION OF THE CELL CYCLE-REGULATED THYMIDYLATE SYNTHASE GENE OF SACCHAROMYCES-CEREVISIAE.

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TI TRANSCRIPTION OF GENES ENCODING ENZYMES INVOLVED IN DNA SYNTHESIS DURING THE CELL CYCLE OF SACCHAROMYCES-CEREVISIAE.

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TI CHITIN SYNTHESIS AND LOCALIZATION IN CELL DIVISION CYCLE MUTANTS OF SACCHAROMYCES-CEREVISIAE.

L20 ANSWER 54 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
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TI CDC AND PRT MUTANTS OF SACCHAROMYCES-CEREVISIAE WITH INCREASED SENSITIVITY
TO DI EPOXY BUTANE AND UV.

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TI PRODUCTION OF PETITES BY CELL CYCLE MUTANTS OF SACCHAROMYCES-CEREVISIAE
DEFECTIVE IN DNA SYNTHESIS.

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TI MEIOTIC EFFECTS OF DNA DEFECTIVE CELL DIVISION CYCLE MUTATIONS OF
SACCHAROMYCES-CEREVISIAE.

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TI KILLER DOUBLE STRANDED RNA SYNTHESIS IN CELL DIVISION CYCLE MUTANTS OF
SACCHAROMYCES-CEREVISIAE.

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TI TMP REQUIRING MUTANTS OF SACCHAROMYCES-CEREVISIAE ARE DEFICIENT IN
THYMIDYLATE SYNTHETASE.

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TI YEAST CELL CYCLE MUTANT CDC-21 IS A TEMPERATURE SENSITIVE THYMIDYLATE
AUXOTROPH.

=> D HIS

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FILE 'MEDLINE, AGRICOLA, CABA, CAPLUS, BIOSIS, BIOTECHNO' ENTERED AT
16:24:03 ON 30 JAN 2006

L1 52 S (DA COSTA E SILVA, O? OR DA COSTA E SILVA O?)/AU
L2 1107 S (BOHNERT, H? OR BOHNERT H?)/AU
L3 21 S (VAN THIELEN, N? OR VAN THIELEN N?)/AU
L4 13011 S (CHEN, R? OR CHEN R?)/AU
L5 7 S (SARRIA MILLAN, R? OR SARRIA MILLAN R?)/AU
L6 3 S L1 AND L2 AND L3 AND L4 AND L5
L7 14143 S L1 OR L2 OR L3 OR L4 OR L5
L8 14140 S L7 NOT L6
L9 0 S CDC21 AND L8
L10 0 S CDC54 AND L8
L11 0 S MCM4 AND L8
L12 231 S CDC21
L13 60 S CDC54
L14 349 S MCM4
L15 577 S L12 OR L13 OR L14
L16 65 S L15 AND (PLANT OR PLANTS)
L17 64 S L16 NOT L7
L18 62 DUPLICATE REMOVE L17 (2 DUPLICATES REMOVED)
L19 3 S L18 AND (TRANSF? OR TRANSGE?)
L20 59 S L18 NOT L19

=> FILE USPATFULL

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 51.25 | 51.46 |

FILE 'USPATFULL' ENTERED AT 16:30:51 ON 30 JAN 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 26 Jan 2006 (20060126/PD)
FILE LAST UPDATED: 26 Jan 2006 (20060126/ED)

HIGHEST GRANTED PATENT NUMBER: US6990685
HIGHEST APPLICATION PUBLICATION NUMBER: US2006021102
CA INDEXING IS CURRENT THROUGH 26 Jan 2006 (20060126/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 26 Jan 2006 (20060126/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

=> S L1 AND L2 AND L3 AND L4 AND L5
4 DA COSTA E SILVA, O?/AU
4 DA COSTA E SILVA O?/AU
19 BOHNERT, H?/AU
19 BOHNERT H?/AU
5 VAN THIELEN, N?/AU
5 VAN THIELEN N?/AU
575 CHEN, R?/AU
575 CHEN R?/AU
4 SARRIA MILLAN, R?/AU
4 SARRIA MILLAN R?/AU
L21 0 L1 AND L2 AND L3 AND L4 AND L5

=> S L1 OR L2 OR L3 OR L4 OR L5
4 DA COSTA E SILVA, O?/AU
4 DA COSTA E SILVA O?/AU
19 BOHNERT, H?/AU
19 BOHNERT H?/AU
5 VAN THIELEN, N?/AU
5 VAN THIELEN N?/AU
575 CHEN, R?/AU
575 CHEN R?/AU
4 SARRIA MILLAN, R?/AU
4 SARRIA MILLAN R?/AU
L22 582 L1 OR L2 OR L3 OR L4 OR L5

=> S L22 AND CDC21
60 CDC21
L23 2 L22 AND CDC21

=> D L23 1-2 TI

L23 ANSWER 1 OF 2 USPATFULL on STN
TI Cell cycle stress-related proteins and methods of use in plants
L23 ANSWER 2 OF 2 USPATFULL on STN
TI Cell cycle stress-related proteins and methods of use in plants

=> D L23 1-2 BIB

L23 ANSWER 1 OF 2 USPATFULL on STN
AN 2004:167229 USPATFULL
TI Cell cycle stress-related proteins and methods of use in plants
IN Silva, Oswaldo da Costa e, Apex, NC, UNITED STATES
Bohnert, Hans J., Tucson, AZ, UNITED STATES
Thielen, Nocha van, Cary, NC, UNITED STATES
Chen, Ruoying, Apex, NC, UNITED STATES
Sarría-Millan, Rodrigo, Morrisville, NC, UNITED STATES
PI US 2004128721 A1 20040701
AI US 2004-768511 A1 20040130 (10)
RLI Division of Ser. No. US 2001-828062, filed on 6 Apr 2001, GRANTED, Pat.
No. US 6710229
PRAI US 2000-196001P 20000407 (60)
DT Utility
FS APPLICATION
LREP Kathryn H. Wade, Ph.D., SUTHERLAND ASBILL & BRENNAN LLP, 999 Peachtree
Street, NE, Atlanta, GA, 30309-3996
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)

LN.CNT 3605

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L23 ANSWER 2 OF 2 USPATFULL on STN
AN 2003:141833 USPATFULL
TI Cell cycle stress-related proteins and methods of use in plants
IN Silva, Oswaldo da Costa e, Apex, NC, UNITED STATES
Bohnert, Hans J., Tucson, AZ, UNITED STATES
Thielen, Nocha Van, Cary, NC, UNITED STATES
Chen, Rouying, Apex, NC, UNITED STATES
Sarria-Millan, Rodrigo, Morrisville, NC, UNITED STATES
PI US 2003097675 A1 20030522
US 6710229 B2 20040323
AI US 2001-828062 A1 20010406 (9)
PRAI US 2000-196001P 20000407 (60)
DT Utility
FS APPLICATION
LREP Lisa M. Cobern, SUTHERLAND ASBILL & BRENNAN LLP, 999 Peachtree Street,
NE, Atlanta, GA, 30309-3996
CLMN Number of Claims: 35
ECL Exemplary Claim: 1
DRWN 19 Drawing Page(s)
LN.CNT 3414
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> D HIS

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L8 14140 S L7 NOT L6
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L12 231 S CDC21
L13 60 S CDC54
L14 349 S MCM4
L15 577 S L12 OR L13 OR L14
L16 65 S L15 AND (PLANT OR PLANTS)
L17 64 S L16 NOT L7
L18 62 DUPLICATE REMOVE L17 (2 DUPLICATES REMOVED)
L19 3 S L18 AND (TRANSF? OR TRANSGE?)
L20 59 S L18 NOT L19

FILE 'USPATFULL' ENTERED AT 16:30:51 ON 30 JAN 2006

L21 0 S L1 AND L2 AND L3 AND L4 AND L5
L22 582 S L1 OR L2 OR L3 OR L4 OR L5
L23 2 S L22 AND CDC21

=> CDC21

CDC21 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (>).

=> S CDC21

L24 60 CDC21

=> S PLANT AND L24

241594 PLANT

L25

24 PLANT AND L24

=> S L25 NOT L23

L26 22 L25 NOT L23

=> D L26 1-10 TI

L26 ANSWER 1 OF 22 USPATFULL on STN

TI Cell-based assay for identifying peptidase inhibitors

L26 ANSWER 2 OF 22 USPATFULL on STN

TI GRF2 binding proteins and applications thereof

L26 ANSWER 3 OF 22 USPATFULL on STN

TI Treatment of patients with multiple sclerosis based on gene expression changes in central nervous system tissues

L26 ANSWER 4 OF 22 USPATFULL on STN

TI Nucleic acid sequences relating to Candida albicans for diagnostics and therapeutics

L26 ANSWER 5 OF 22 USPATFULL on STN

TI Rice promoters for regulation of plant expression

L26 ANSWER 6 OF 22 USPATFULL on STN

TI Hybrid and single chain meganucleases and use thereof

L26 ANSWER 7 OF 22 USPATFULL on STN

TI Genes expressed in the cell cycle

L26 ANSWER 8 OF 22 USPATFULL on STN

TI Growth-related inflammatory and immune response protein

L26 ANSWER 9 OF 22 USPATFULL on STN

TI Oligopeptide treatment of anthrax

L26 ANSWER 10 OF 22 USPATFULL on STN

TI Gene regulator

=> D L26 11-22 TI

L26 ANSWER 11 OF 22 USPATFULL on STN

TI Systematic discovery of new genes and genes discovered thereby

L26 ANSWER 12 OF 22 USPATFULL on STN

TI Reversible nuclear genetic system for male sterility in transgenic plants

L26 ANSWER 13 OF 22 USPATFULL on STN

TI Reversible nuclear genetic system for male sterility in transgenic plants

L26 ANSWER 14 OF 22 USPATFULL on STN

TI Reversible nuclear genetic system for male sterility in transgenic plants

L26 ANSWER 15 OF 22 USPATFULL on STN

TI Reversible nuclear genetic system for male sterility in transgenic plants

L26 ANSWER 16 OF 22 USPATFULL on STN

TI Fine-tuned protegrins

L26 ANSWER 17 OF 22 USPATFULL on STN

TI DNA promoter 5126 and constructs useful in a reversible nuclear genetic system for male sterility in transgenic plants

L26 ANSWER 18 OF 22 USPATFULL on STN

TI Reversible nuclear genetic system for male sterility in transgenic plants

L26 ANSWER 19 OF 22 USPATFULL on STN

TI Reversible nuclear genetic system for male sterility in transgenic plants

L26 ANSWER 20 OF 22 USPATFULL on STN

TI Reversible nuclear genetic system for male sterility in transgenic plants

L26 ANSWER 21 OF 22 USPATFULL on STN

TI Transgenic plants and DNA comprising anther specific promoter 5126 and gene to achieve male sterility

L26 ANSWER 22 OF 22 USPATFULL on STN

TI Transgenic plant and method for producing male sterility using anther specific promoter 5126

=> D HIS

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FILE 'USPATFULL' ENTERED AT 16:30:51 ON 30 JAN 2006

L21 0 S L1 AND L2 AND L3 AND L4 AND L5
L22 582 S L1 OR L2 OR L3 OR L4 OR L5
L23 2 S L22 AND CDC21
L24 60 S CDC21
L25 24 S PLANT AND L24
L26 22 S L25 NOT L23

=> LOGOFF

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:Y

COST IN U.S. DOLLARS

| SINCE FILE ENTRY | TOTAL SESSION |
|------------------|---------------|
| 7.72 | 59.18 |

FULL ESTIMATED COST

STN INTERNATIONAL LOGOFF AT 16:33:13 ON 30 JAN 2006